

Application No. 09/681,008
Filed: November 15, 2000
Group Art Unit: 2881

REMARKS/ARGUMENTS

Claims 1-2, 4-6, and 8-22 remain in this application. Claims 3 and 7 has been cancelled.
Claims 1-2, 4-6, and 8-22 has been amended.

Claim rejections – 35 USC 112

Claims 2-4 and 7 were rejected under 35 USC 112 second paragraph.

Applicant cancels claims 3 and 7.

Claim 2 was amended to clarify that since the scanning device emits a laser beam used to scan the plurality of samples arranged on the specimen receiving device, it is unavoidable that there is the need for a relative movement between the scanning device and the specimen receiving device. The relative movement makes it possible for the scanning beam to reach all areas on the specimen receiving device. The directions referenced by numerals (5) and (6) in Fig. 1 of the present application are not the same, which fact is now incorporated into amended Claim 2.

Claim 4 has been amended to correct the informality.

It is now believed that the above-referenced rejection has been overcome. Allowance of the application is respectfully requested.

Claim rejections – 35 USC 102

Claims 1-3, 5-6, 7-8, 13-17, and 21 were rejected as anticipated by U.S. Patent 5,532,874 to Stein (the Stein patent). The Stein patent discloses a rotatable turntable 32 and an arrangement containing a scanning head 42, which is not rotatable about an axis (please refer to Figs. 2 and 4, description in Col. 2, lines 39-67 and Col. 3, lines 1-29). Contrary to the system described in the Stein patent, independent Claim 1 as amended is directed to a scanning device being rotatable

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about an axis and a specimen receiving device both being rotatable about a different axis.
Therefore, amended Claim 1 is not anticipated by the Stein patent.

Claims 2, 4-6, 8-22 hinge off independent Claim 1 as amended and, therefore, are not anticipated by the Stein patent.

It is now believed that the above-referenced rejection has been overcome. Allowance of the application is respectfully requested.

Claim rejections under 35 USC 103

Claims 4 and 9-10 were rejected under 35 USC 103 as being unpatentable over Stein. Applicant respectfully asserts that the Stein reference does not disclose the invention claimed in independent Claim 1 as amended, consistent with the arguments provided above. Nor does the Stein patent suggest, teach or in any way hint to the invention claimed in amended Claim 1. Claims 4 and 9-10 as amended hinge off independent Claim 1 as amended and are now patentable. Therefore, withdrawal of this rejection is respectfully requested.

Claims 11-12 were rejected under 35 USC 103(a) as being unpatentable over Stein in view of US Patent 3,625,586 to Olexa (the Olexa patent). Applicant respectfully asserts that the Stein patent in combination with the Olexa patent does not disclose the invention claimed in independent Claim 1 as amended, consistent with the arguments provided above. Nor does the combination of the Stein and Olexa patents suggest, teach or in any way hint to the invention claimed in amended Claim 1. Claims 11-12 as amended incorporate all the limitations of independent Claim 1 as amended and are now patentable. Therefore, withdrawal of this rejection is respectfully requested.

Claim 18 was rejected under 35 USC 103(a) as being unpatentable over Stein in view of US Patent 4,191,940 to Polcyn (the Polcyn patent). Applicant respectfully asserts that the Stein patent in combination with the Polcyn patent does not disclose the invention claimed in independent Claim 1 as amended, consistent with the arguments provided above. Nor does the

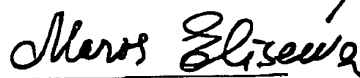
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combination of the Stein and Polcyn patents suggests, teaches or in any way hints to the invention claimed in amended Claim 1. Claim 18 as amended incorporates all the limitations of independent Claim 1 as amended and is now patentable. Therefore, withdrawal of this rejection is respectfully requested.

Claims 19-20 and 22 were rejected under 35 USC 103(a) as being unpatentable over Stein in view of US Patent 6,248,988 to Krantz (the Krantz patent). Applicant respectfully asserts that the Stein patent in combination with the Krantz patent does not disclose the invention claimed in independent Claim 1 as amended, consistent with the arguments provided above. Nor does the combination of the Stein and Krantz patents suggest, teach or in any way hint to the invention claimed in amended Claim 1. Claims 19-20 and 22 as amended incorporate all the limitations of independent Claim 1 as amended and are now patentable. Therefore, withdrawal of this rejection is respectfully requested.

Applicants respectfully requests expeditious consideration and allowance of the present application. The Examiner is invited and encouraged to telephone the undersigned with any questions concerning the issuance of the present application.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

Claim 3 and 7 have been canceled.

Claims 1-2, 4-6, and 8-22 have been amended as follows:

1.(Amended) An apparatus for optical scanning of multiple specimens [(1), comprises]
comprising a specimen receiving device [(2)] for holding the specimens [(1)], the specimen
receiving device defining an axis of rotation and being rotatable about the axis of rotation; and

a scanning device [(3)] provided for optically scanning the specimens, [the specimen
receiving device (2) defines an axis (4) of rotation and] the scanning device [(3)] defining
a further axis and being rotatable about the further axis, the scanning device [is] being
arranged movably relative to the specimen receiving device [(2)].

2.(Amended) The apparatus as defined in Claim 1, [characterized in that] wherein the scanning
device [(3)] or the specimen receiving device [(2)] is linearly displaceable and wherein the
scanning device [(3)] defines a movement in a first radial direction [(5)] and the specimen
receiving device [(2)] defines a movement in a second radial direction [(6)], and the relative
movement between scanning device [(3)] and specimen receiving device [(2)] resulting from the
first radial direction and the second radial direction is linear [occurs in the radial direction [(5,
6)]]].

3. (Cancelled)

4.(Amended) The apparatus as defined in Claim 1, [characterized in that the] wherein an
optical distance between a specimen [(1)] and the scanning device [(3)] remains substantially
constant during [of] a relative motion between the scanning device [(3)] and the specimen
receiving device [(2)].

5.(Amended) The apparatus as defined in Claim 1, [characterized in that] wherein the specimen
receiving device [(2)] defines a rotation speed of the specimen receiving device [(2)], and the

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rotation speed is dependent on the relative position between the specimen receiving device [(2)] and the scanning device [(3)].

6.(Amended) The apparatus as defined in Claim 5, [characterized in that] wherein the rotation speed is dependent on [the] a detected data stream of the scanning device [(3)].

7. (Cancelled)

8.(Amended) The apparatus as defined in Claim 1, [characterized in that] wherein the specimen receiving device [(2)] receives a single, replaceable specimen vessel.

9.(Amended) The apparatus as defined in Claim 1, [characterized in that] wherein the specimen receiving device [(2)] receives a replaceable carousel insert [(8)].

10.(Amended) The apparatus as defined in Claim 9, [characterized in that] wherein the carousel insert [(8)] receives individual specimen holders [(9)].

11.(Amended) The apparatus as defined in Claim 10, [characterized in that] wherein the individual specimen holders [(9)] are positionable in a predefinable plane on the carousel insert [(8)] with retaining means [(10)].

12.(Amended) The apparatus as defined in Claim 10, [characterized in that] wherein the individual specimen holders [(9)] are positioned resiliently.

13.(Amended) The apparatus as defined in Claims 1, [characterized in that] wherein an auto focusing means is provided for maintaining the specimens in focus.

14.(Amended) The apparatus as defined in Claim 13, [characterized in that] wherein the auto focusing means maintains the surface of the rotating specimen receiving device [(2)] or of the specimen vessel or of the specimen holders [(9)] located in the carousel insert [(8)] always within a deviation of less than 20 μ m in the direction of the optical axis [(12)] of the scanning device [(3)] [of less than 20 μ m].

15.(Amended) The apparatus as defined in Claim 1, [characterized in that] wherein at least one laser beam is provided for scanning the specimens [(1)] and at least one detector [(14)] detects the light reflected from the specimens.

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16.(Amended) The apparatus as defined in Claim 15, [characterized in that] wherein the laser beam scans in at least one direction.

17.(Amended) The apparatus as defined in Claim 15, [characterized in that] wherein the laser beam is stationary relative to the scanning device [(3)].

18.(Amended) The apparatus as defined in Claim 15, [characterized in that] wherein [scanning is accomplished with] the laser [light] beam provided for scanning [of] can be of different wavelengths.

19.(Amended) The apparatus as defined in Claim 15, [characterized in that] wherein the laser beam has an axial extent of the focus region in the specimen region of less than 40 μ m.

20.(Amended) The apparatus as defined in Claims 15, [characterized in that] wherein the laser beam has a lateral extent of the focus region in the specimen region in a range between 5 μ m and 200 μ m.

21.(Amended) The apparatus as defined in Claims 15, [characterized in that] wherein the laser beam defines an non-zero incidence angle on the surface of the specimen receiving device [(2)] or the specimen vessel or [onto] the specimen holders [(9)]. [wherein the incidence angle being greater or less than zero.]

22.(Amended) The apparatus as defined in Claim 14, [characterized in that] further comprising synchronization markers [(19)] [are] provided on the specimen receiving device [(2)] or the specimen vessel or the carousel insert [(8)].